IN THE CLAIMS:

Please amend the claims as follows:

1-41. (Canceled)

42. (Currently Amended) An electronic device having a substrate fabricated according to a process that includes forming on said substrate inside a deposition chamber an amorphous silicon-based film having a tensile stress of between about 10^8 and about 10^9 dyne/cm^2, the method comprising:

introducing a silicon-based volatile into the deposition chamber;

introducing into the deposition chamber a conductivity-increasing volatile including one or more components for increasing the conductivity of the amorphous silicon-based film; and

introducing into the deposition chamber a conductivity-decreasing volatile including ~~one~~ two or more components for decreasing the conductivity of the amorphous silicon-based film; wherein the conductivity-increasing and conductivity-decreasing volatile are introduced into said deposition chamber at a flow rate ratio between about 1:1 and about 1:1000 conductivity-increasing to conductivity-decreasing volatile; thereby forming said amorphous silicon-based film on said substrate.

43. (Previously Presented) The electronic device of claim 42, wherein said deposition chamber is a CVD chamber or a PECVD chamber.

44. (Previously Presented) The electronic device of claim 42, wherein the flow rate ratio is selected to achieve a film resistivity of about 10^3-10^7 ohm-cm.

45. (Currently Amended) The electronic device of claim 42, wherein the conductivity-increasing volatile consists of phosphine and the conductivity-decreasing volatile consists of ammonia and methane, and the ~~phosphine and the ammonia being~~

~~introduced into the deposition chamber at a~~ flow rate ratio is in a range of about 1:1000 to about 1:10 ~~(phosphine:ammonia)~~.

46. (Currently Amended) The electronic device of claim 42, wherein the conductivity-increasing volatile consists of phosphine and the conductivity-decreasing volatile consists of methane, and the ~~phosphine and the methane being introduced into the deposition chamber at a~~ flow rate ratio is in a range of about 1:100 to about 1:1 ~~(phosphine:methane)~~.

47. (Previously Presented) The electronic device of claim 42, wherein the conductivity-increasing volatile includes an n-type dopant or a p-type dopant.

48. (Previously Presented) The electronic device of claim 42, wherein the amorphous silicon-based film is characterized by a band gap, and the conductivity-decreasing volatile includes a band gap increasing component that increases the band gap of the amorphous silicon-based film relative to a film formed under similar conditions but without the band gap increasing component.

49. (Previously Presented) The electronic device of claim 42, wherein the conductivity-decreasing volatile includes nitrogen or carbon.

50. (Currently Amended) The electronic device of claim 42, ~~the method further comprising introducing into the deposition chamber a second conductivity-decreasing volatile,~~ wherein the silicon-based film consists of silane, the conductivity-increasing volatile consists of phosphine, and the ~~first~~ conductivity-decreasing volatile consists of ammonia [[,]] and ~~the second conductivity-decreasing volatile consists of~~ methane.

51-108. (Canceled)

109. (Previously Presented) The electronic device of claim 42, wherein said electronic device is a field emission device.

110. (Previously Presented) The electronic device of claim 42, wherein said electronic device is a flat panel display device.